State-Owned Enterprises in Contemporary China

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Abstract

This chapter provides an overview of SOEs in contemporary China. It examines the corporate organization of Chinese SOEs, their political embeddedness in the bureaucratic hierarchies of the state and CCP, and the political mobility of SOE leaders. The chapter scrutinizes the CCP's role in SOE governance through Party committees and the interactions between SOEs and higher-level Party organs, and it assesses the rationale and real-world costs of strengthening Party influence. It further examines Chinese SOEs' growing global activities in contracting, greenfield investments, M&A, and the development and export of new technologies.

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1. Introduction

The massive scale of China's state sector makes it a crucial case for the comparative study of state-owned enterprises (SOEs). China has the world's largest total number of SOEs and the highest share of SOEs among its biggest companies (OECD, 2017; Kowalski et al., 2013). Within China, SOEs contribute an estimated 23% of GDP as of 2017 (Zhang, 2019). SOEs also constitute approximately 40% of total market capitalization and 50% of company revenues for the Shanghai and Shenzhen stock exchanges (Rosen, Leutert and Guo, 2018: 9). Although the state sector's overall size has decreased significantly since the planned economy period, analysis of SOEs in contemporary China does not suggest that the state is in retreat (Eaton, 2015; Lardy, 2014; Lardy, 2019; Naughton, 1996). As of 2019, there are 82 SOEs from mainland China on the 2019 Fortune Global 500 ranking of the world's largest firms by revenue (Fortune, 2019). Beyond China's borders, SOEs have long provided the majority of Chinese overseas direct investment (Scissors, 2017).

Chinese SOEs' poor performance relative to private firms might make their strong domestic and international presence seem puzzling. As of June 2018, SOEs constituted 28% of China's industrial assets but accounted for only 18% of total industrial profit. State firms continue to deliver weak return on assets—just 3.9% compared with 9.9% for private firms as of the end of 2017. At the same time, SOEs accumulated RMB 100 trillion (USD 15 trillion) in debt by the end of 2017, equivalent to 120% of national GDP (Rosen, Leutert and Guo, 2018: 9, calculations using National Bureau of Statistics and Ministry of Finance data). And although SOEs' leverage has declined gradually, it remains much higher than that of private after the 2008 global financial crisis.

SOEs persist in China, as elsewhere, because they serve vital strategic functions for the state. Chinese SOEs advance industrial policy by directing capital toward targeted sectors, key technologies, priority national projects, and domestic and international initiatives, such as current leader Xi Jinping's Poverty Alleviation Campaign and Belt and Road Initiative (BRI). SOEs serve a redistributive function sub-nationally by expending most of their investment on infrastructure in poorer interior provinces (Batson, 2017). In addition, state firms support social stability by employing approximately 60 million people as of 2016, maintaining low input prices, and responding to natural disasters. The Chinese leadership also uses SOEs to manage economic and political crises, for example in its responses to domestic stock market turmoil in 2015 and popular protests in Hong Kong in 2019.

There are two main types of Chinese SOEs: central SOEs and local SOEs. Central SOEs, the main focus of this chapter, refer to non-financial companies owned by the central government and administered by the State-owned Assets Supervision and Administration Commission (SASAC). China's 96 central SOEs are further halved into "core" firms with vice-ministerial rank equivalence and non-core firms with department-level rank equivalence.[2] Core central SOEs include the largest and best-known state firms, like Sinopec, State Grid, and China Unicom (see Table 1). They are concentrated in industries with high strategic value and barriers to entry, including defense, electricity, petroleum, telecommunications, and transportation (Hsueh, 2011; Hsueh, 2016). Non-core central SOEs vary in size and commonly operate in more competitive industries like electronics and automobiles. Local SOEs refer to companies owned by local governments or State-Owned Asset Supervision and Administration Commissions at the provincial level and below. There are approximately 116,000 local SOEs located at various levels of government in China as of 2017 (Rosen, Leutert, Guo, 2018: 12). Local SOEs are active players in a variety of industries, ranging from mining to construction.

[2] A current list of central SOEs (in Chinese) is available at http://www.sasac.gov.cn/n2588035/n2641579/n2641645/index.html.

Name	Level of state ownership	Industry	Revenues (USD million)	Employees
Sinopec	Central	Oil	414,649.90	619,151
China National Petroleum	Central	Oil	392,976.60	1,382,401
State Grid	Central	Electricity	387,056.00	917,717
China State Construction Engineering	Central	Construction	181,524.50	302,827
SAIC Motor	Local	Automobiles	136,392.50	147,738
China Railway Engineering Group	Central	Construction	112,132.70	307,992
China Mobile	Central	Telecommunications	112,096.00	462,046
China Railway Construction	Central	Construction	110,455.90	356,326
China National Offshore Oil	Central	Oil	108,130.40	93,601
China Resources	Central	Trade and investment	91,986.00	421,274

Table 1 Largest Chinese SOEs by Revenue Source: Fortune 2019

Both central and local SOEs from China are increasingly important actors in the world economy. The BRI is accelerating Chinese SOEs' expansion abroad by providing renewed political impetus and additional capital resources for the development of power plants, ports, railways and other infrastructure abroad. Chinese SOEs are also expanding their international business portfolios through mergers and acquisitions (M&A) of foreign companies worldwide. In addition, Chinese SOEs are pioneering the development and export of new technologies in areas like energy and transportation, amplifying China's influence and ability to shape international technical standards.

This chapter proceeds as follows. The first section introduces the corporate structure of SOEs in China and explains how they are embedded politically in the bureaucratic hierarchies of the Chinese state and the ruling Chinese Communist Party (CCP). The following section analyzes the CCP's role in SOE governance by examining SOE Party committees, their relationship with boards of directors and higher-level Party organs, and the rationale and risks of ongoing efforts to institutionalize the Party's leadership role. The next section moves beyond firm and national boundaries to address Chinese SOEs' global expansion through contracting, greenfield investments, and M&A. The chapter concludes with a discussion of key questions and issues for future research on Chinese SOEs.

2. SOEs in China's economic and political system

2.1 *Corporate organization*

Large Chinese SOEs are typically organized as multi-tiered enterprise groups, with member entities—including joint venture firms, research institutes, and publicly listed subsidiaries—arrayed under a state-owned group company. The group company is the top administrative layer of the SOE and has no independent commercial function. The entities below the group company are legally separate but may be connected through a variety of legal, economic, and social ties (Keister, 2000). Some central SOEs are comprised of as many as 100 to 200 or more member entities, with the average number more than doubling from 82 in 2003 to 191 in 2010 (Hsieh and Zheng, 2015). Each of these member entities may in turn have additional subsidiaries itself, or hold shares in other member entities (Lin and Milhaupt, 2013). Chinese state-owned enterprise groups operate in a core industry but frequently span multiple additional sectors, commonly including real estate or finance, despite government efforts to limit SOE business outside of core industries. Multi-tiered, complex organizational structures and cross-industry activities are typical of many large multinational firms, both state-owned and private. What makes today's Chinese SOEs different is their dramatic increase in asset size, organizational complexity, industry holdings, and geographic scope—due to expansion abroad and domestic restructuring via mergers (Leutert, 2016).

Levels of state ownership vary across Chinese SOEs and their subsidiaries. State ownership levels range from full state ownership to majority shareholding to minority shareholding, with each arrangement potentially having distinctive implications for governance and performance (Musacchio and Lazzarini, 2014). For central SOEs, typically the group company is wholly state-owned and a varying proportion of the assets of selected subsidiaries may be publicly listed on domestic or overseas stock exchanges. For example, in 2017 central SOE China Unicom permitted investors to purchase approximately 20% of shares in its main Shanghai-listed subsidiary, China United Network Communications Limited. The Chinese government intended for this to be a model for other SOEs, but it has yet to be replicated widely. Instead, the relative proportion of overall state-owned enterprise group assets that are publicly listed is often low and majority public listing remains a distant goal for most. The majority of Chinese SOEs' assets are typically unlisted, with the specific proportion of publicly-listed assets varying significantly across firms.

2.2 *Embeddedness in state and CCP hierarchies*

Chinese SOEs are embedded in the bureaucratic hierarchies of both the state and the ruling CCP. At the central level, all central SOEs are formally under the administration of SASAC, a special commission of the State Council established in 2003. As Mark Wu (2016) puts this institutional arrangement in comparative terms: "Imagine if one U.S. government agency controlled General Electric, General Motors, Ford, Boeing, U.S. Steel, DuPont, AT&T, Verizon, Honeywell, and United Technologies. … It could hire and fire management, deploy and transfer resources across holding [group] companies, and generate synergies across its holdings" (272). SASAC assesses the economic performance of central SOEs and assigns their leaders an annual grade ranging from A to E, which determines whether they will receive compensation higher or lower than a fixed baseline. SASAC also appoints the top leadership positions—Party secretary, general manager, and board chairman—for non-core central SOEs. However, the Central Organization Department (COD), the CCP's powerful organ for personnel affairs, exercises appointment authority over the leadership of core central SOEs (Brødsgaard, 2012: 633-634). Figure 1 depicts the corporate organization of central SOEs and their position in China's bureaucracy.

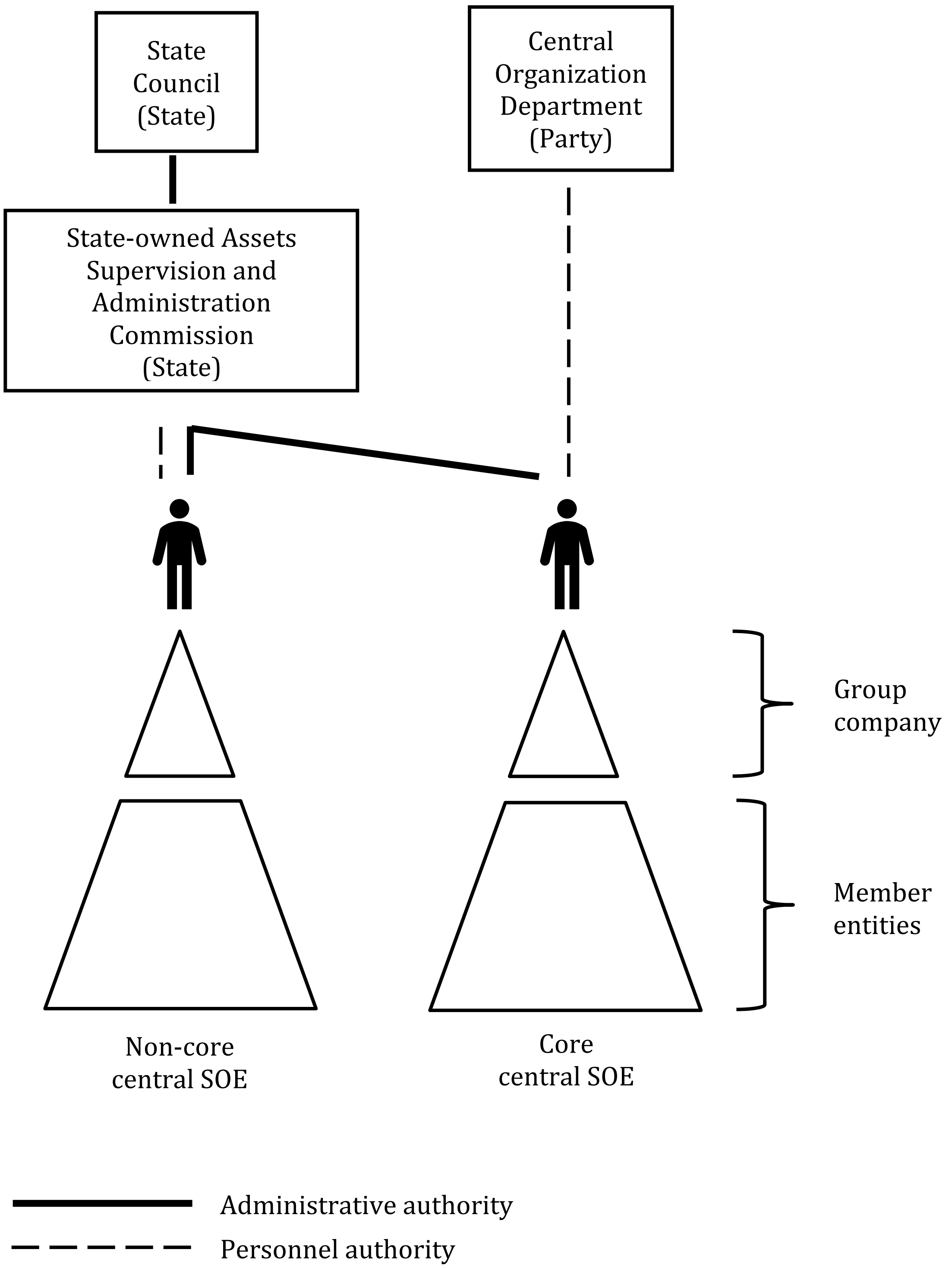

Figure 1 Central SOEs in China's bureaucracy

Joint appointments, in which a single individual serves simultaneously in multiple executive and Party leadership roles, are another mechanism embedding SOEs in both government and CCP hierarchies. It is a long-standing practice for SOE leaders to hold both managerial and Party positions under the principle of "two-way entry, overlapping position holding." In central SOEs, for example, the board chairmen typically also serve as the Party secretaries of their firms. Joint appointments centralize authority by shortening the chain of command between the Party-state and central SOEs. And when joint appointments combine executive and Party positions, they further blur the division of labor and implicit separation between commercial and political affairs. Such joint appointments can thus be viewed as a way to constrain managerial independence by bringing SOE leadership into the political realm of the CCP.

Selected Chinese SOE leaders may also simultaneously hold positions in external government and CCP bodies. For example, heads of central SOEs serve as members of government assemblies like the National People's Congress and the National People's Political Consultative Conference, as full or alternate members of the CCP Central Committee, and as members of the CCP Central Commission for Discipline Inspection. A smaller number of central SOE leaders are members of provincial People's Congresses or provincial People's Political Consultative Conferences. Yet although central SOE leaders do serve in these external government and Party bodies, they constitute a small proportion of their overall membership. The share of central SOE leaders serving in the CCP Central Committee, for example, peaked at 10% in 1993 and accounted for only 6.8% in 2014 (Zhang, Zhang and Liu, 2017: 405).

2.1 *Political mobility of SOE leaders*

Studying SOE leaders' backgrounds and career trajectories illuminates their key attributes as a group of Chinese political elites, the degree of their integration into the broader state and Party bureaucracies, and variation in central control across political regimes. Chinese SOEs leaders are simultaneously company executives, government bureaucrats, and Party officials. They possess the equivalent of the administrative rank formally accorded to civil servants, and as Party members they are subject to political management by the CCP. SOE leaders are typically college-educated Han Chinese men between 50 and 60 years of age. Although SOE leaders can move between positions in central and local government, Party organs, and other SOEs, they have less political mobility than other types of Chinese officials. They often spend decades working within particular industries and firms, and they have significantly longer leadership tenures than local officials of comparable administrative ranking. It remains very rare for SOE leaders to cross over into the private sector. Among central SOEs, most leaders retire directly from their executive positions, with smaller numbers of individuals advancing to other leadership posts in central government or Party bodies (Leutert, 2018A).

Since SOE leaders belong to the CCP's broader cadre management system, existing research on political movements in other areas of the Chinese bureaucracy provides a starting point for analyzing their political mobility. Numerous studies of Chinese officials' career trajectories find a positive correlation between economic performance and political advancement (Landry, 2008; Landry, Lü and Duan, 2018; Li and Zhou, 2005; Maskin, Qian and Xu, 2000). This positive relationship is theorized to generate a meritocratic growth model in which the CCP's control over personnel incentivizes and rewards positive economic performance (Zhou, 2018). Another body of work finds that political connectedness improves officials' political prospects (Chen, 2006; Landry, 2003; Shih, Adolph, and Liu, 2012). Still other studies find that economic performance has a larger effect at lower levels and for government positions, whereas political connectedness matters more at the central level and for Party posts (Choi, 2012; Landry, Lü and Duan, 2018). Recent work contends that economic performance itself may be partly endogenous to political connections (Jiang, 2018).

Scholarship specifically addressing the political mobility of central SOE leaders is growing but remains limited. One study finds that economic performance, membership in the CCP Central Committee, and having a Ph.D. degree all boosted the likelihood of advancement within and beyond the top ranks of central SOE management between 2008 and 2011 (Yang, Wang, and Nie, 2013). Other research looks inside the multi-tiered organizational structure of central SOEs to focus on intra-firm political mobility, finding that economic performance positively impacted the internal promotion of subsidiary heads between 2003 and 2012 (Brødsgaard et al., 2017). Still other analyses explore the career trajectories of different subsets of central SOE leaders, their political connectedness, and their degree of institutional integration within China's political system (Brødsgaard, 2012; Leutert, 2018; Li, 2016; Lin, 2017; Liou and Tsai, 2017; Zhang, Zhang and Liu, 2017).

SOE leaders' political mobility may also vary across political regimes. Comparing the Hu Jintao and Xi Jinping administrations, for example, top leaders of central SOEs were transferred from one central SOE to another at an average rate of 3.8 transfers per year during Xi's first term between 2013 and 2017, compared with just 1.4 transfers per year under Hu between 2003 and 2012 (Leutert, 2018B: 4). Such findings suggest that different regimes may use instruments of central control over SOEs, such as executive appointment authority, in divergent ways. More systematic analysis of Chinese SOE leaders over longer time periods spanning different political regimes is needed to further investigate this phenomenon.

3. The Party's role in SOE governance

3.1 *Party organizations*

The CCP constitution requires SOEs, like all organizations in China with more than three full Party members, to form a Party committee. Party committees are found inside SOEs at the group company level and also within every subsidiary. In theory and in practice, SOE Party committees focus primarily on personnel and political affairs. Party committees nominate, appoint, and evaluate senior personnel. They also guide selected employees through the process of joining the CCP, circulate political propaganda, and organize study sessions for Party members about important central-level policies, work meetings, political campaigns, and speeches by top national leaders. SOE Party committees coordinate with higher-level Party authorities, such as the Party committee of SASAC, to implement CCP policies and campaigns. SOE Party committees typically do not participate directly in commercial affairs unless they involve high-value projects, those deemed of national importance, or those that have run into significant regulatory or political problems.

SOE Party committees at the group company level can shape corporate behavior through their agenda-setting power. This power derives from the Party committee's authority to discuss "major" decisions before they go to the board of directors for formal and final determination. This authority originated during the Jiang Zemin administration (1993-2002) with the concept of “three majors, one large,” which directed Party committees to participate in SOE decision-making when it involves macro-level controls, national strategy, or national security (“three majors”)—or if it touches on operational or managerial matters that are important or broad in scope (“one large”). No official central guidance exists concerning specifically what constitutes “major decisions,” but Party documents list examples including corporate strategy, development plans, budgets, senior personnel affairs, enterprise asset restructuring and capital management, and changes to internal corporate organization.

Significant overlap exists between the membership of SOE Party committees and boards of directors at the group company level. Under the system of joint appointments, the board chairman typically serves simultaneously as the Party secretary. It is common for all executive directors to also be Party committee members. Take for example China International Intellitech, a central SOE that provides separate rosters for its group-level board of directors and Party committee on its website. Out of its seven board members, four are external directors from outside the firm and the remaining three—the board chairman, an executive director, and the employee director—all belong to the Party committee. These three individuals in turn constitute more than half of the membership of the company’s five-person Party committee (Rosen, Leutert and Guo, 2018: 31). Limited transparency about the membership of SOE group company boards of directors and Party committees prevents systematic analysis of such overlap across a large number of firms, but such examples suggest it may be significant.

Party organs at higher levels in the Chinese bureaucracy, such as the Party committee of SASAC, are also formally authorized to play a role in SOE governance. A 2015 policy directive enumerates higher Party organs’ areas of potential authority to include delegating specific Party building tasks to SOE Party leadership and coordinating to implement campaigns, as well as setting standards, standardizing procedures, evaluating, and nominating candidates for SOE senior management. Publicly available evidence, however, does not indicate that higher-level Party organs either routinely or systematically intervene in the activities of SOE Party committees.

3.2 *Institutionalization of Party leadership*

The Xi Jinping administration has taken multiple steps to institutionalize the Party's "leadership role" in SOE governance. A 2015 policy directive ordered SOEs to make the Party committee the "political core" of corporate governance and legalized the long-standing practice of Party committees discussing "major decisions" before they go to boards of directors for final determination. In January 2017, SASAC further directed SOEs to revise their corporate charters to formalize requirements for Party building work and the Party committee's role in corporate governance, with the subsequent amendments differing in their specific content and timing (Zhuang and Zhang, 2019). The China Securities Regulatory Commission's "Code of Corporate Governance for Listed Firms," released for public comment in June 2018, similarly mandates publicly listed firms of all ownership types support Party building activities; it also requires state-controlled listed firms to codify Party leadership in their corporate charters. In addition, the Xi administration revised the CCP constitution in October 2017 to formally affirm the Party committee's authority to play a leadership role in SOE decision-making.

The Xi administration is prioritizing stronger Party oversight of SOE operations and assets in its ongoing anti-corruption campaign, because it believes this will reduce graft and improve overall SOE supervision and accountability. Xi initiated this far-reaching campaign shortly after assuming leadership in 2012, and SOEs rapidly became a top target. The Central Commission for Discipline Inspection (CCDI), the CCP's main disciplinary body, conducted three successive waves of inspections targeting the core central SOEs: at 2 firms in 2013, 10 firms in 2014, and 43 firms in 2015. By the end of Xi's first five years in office in 2017, 12 top executives of the core central SOEs had fallen on corruption charges (Leutert, 2018B: 32). The CCDI launched another round of anti-graft inspections in 2019, targeting 42 firms among all central SOEs as well as SASAC. Reports of investigations and removals of SOE leaders suggest some progress is being made in official efforts to tackle corruption in China's state sector. However, since Xi's anti-corruption campaign operates outside existing systems of governance in SASAC and central SOEs, its ability to institutionalize structural improvements at the firm level in areas like auditing, information reporting, and transparency is limited.

Institutionalizing the CCP's leadership role and strengthening its oversight function for SOEs has real-world costs. At home, a greater role for the Party in SOE governance risks undermining the private sector buy-in essential for the Xi administration's "mixed ownership" strategy for SOE reform to succeed.[3] Although the corporate charters of Chinese SOEs' publicly listed subsidiaries provide robust formal guarantees that minority shareholders' interests will be protected, many in the private sector remain wary that profit maximization will be the top priority in situations where national interests or political stability are at stake (Lin and Chang, 2019). Abroad, giving the Party a bigger say in governance risks reputational costs and heightened regulatory scrutiny for Chinese SOEs operating abroad. Amid rising concern in Washington DC, Brussels, and other global capitals about the potential political motivations and security implications of Chinese SOEs' business overseas, such moves only amplify existing perceptions that the Party state is directing and supporting SOE activities.

4. Chinese SOEs' global expansion

Beyond China's borders, Chinese SOEs now play a leading role in global infrastructure development, M&A, and the development and export of new technologies. China's national champions first began "going out" in large numbers in the 1990s to develop infrastructure overseas. In subsequent decades, Chinese policy banks—the Export-Import Bank of China and China Development Bank—have facilitated SOE business abroad by financing it with instruments including export buyers' credits and concessional loans. Strong policy and financial support have enabled Chinese SOEs to become dominant players in the global infrastructure market. Six Chinese SOEs rank in the top 20 of the Engineering News Record's 2019 list of top international contractors, a higher proportion than firms from any other country (Engineering News Record 2019).

The Belt and Road Initiative (BRI) has further accelerated Chinese SOEs' expansion abroad. The Xi administration launched the BRI in 2013 as a major international campaign to increase infrastructure connectivity, investment, and trade between China and the world. The BRI incentivizes Chinese SOEs to develop power plants, ports, railways, and other infrastructure

[3] The "mixed ownership" strategy for SOE reform entails diversifying SOEs' shareholding structures through public listing of state-owned assets, selling state shares to private investors, and/or giving employees stock ownership.

abroad by providing additional political impetus and capital resources for their business overseas. According to SASAC, more than 80 of the 96 central SOEs have undertaken 3,100-plus projects worldwide under BRI auspices as of 2019. However, debate continues about whether strategic political coordination or uncoordinated commercial competition is the primary driver of Chinese SOEs' international activities in the context of the BRI—and beyond.

What is becoming clear, however, is that China's SOEs are no longer merely builders backed by Chinese finance. Chinese SOEs are moving up the value chain to operate, own, and invest in projects abroad, thereby assuming long-term commercial and strategic stakes in countries around the world. For instance, central SOE China Construction Communications Corporation advocates transitioning from contractor to operator, owner, and investor in its corporate strategy, and the company recently took an equity share in a public private partnership (PPP) port project that it is building in Cameroon. Chinese SOEs are also increasingly investing their own capital to build, own, and operate infrastructure projects overseas. Local SOE Shenzhen Energy, for instance, provided part of the capital for its first project abroad, the Sunon Asogli Power Plant in Ghana.

Chinese SOEs are also expanding their international portfolios by acquiring minority and majority shares in foreign companies. Although private enterprises from China have surpassed SOEs in annual cross-border acquisitions in every year from 2005 to 2017, the value of the M&A transactions that SOEs make has exceeded that of private enterprises in almost every year during the same period (Gordon and Milhaupt, 2019: 221, calculations using Thomson Reuters data). Central SOE ChemChina's $43 billion acquisition of Swiss biotech company Syngenta is the largest such SOE M&A deal to date. Chinese SOEs have racked up almost 200 M&A transactions every year since 2012, with a peak of more than 500 deals in 2017 (Gordon and Milhaupt, 2019: 221, calculations using Thomson Reuters data). The need to acquire advanced technologies and international market share, together with stronger policy emphasis in China for the state to shift from operating assets to investing capital, will keep overseas M&A activity a priority for Chinese SOEs in the future. However, rising concern about the potential political motives and security risks involved in Chinese SOEs' overseas acquisitions is motivating closer scrutiny by foreign governments, particularly when deals involve sensitive industries, technologies, or data.

Finally, Chinese SOEs are pioneering the development and export of new technologies. State firms have benefited from policy support for indigenous innovation in sectors including electricity transmission, nuclear power, telecommunications, information technology, high speed rail, and electric vehicles. Chinese SOEs' technical achievements in turn amplify China's influence and ability to shape international technical standards in these fields. Take for instance central SOE and global electricity giant State Grid. After building the world's first operational ultra-high voltage electricity transmission grids in China, State Grid exported this technology beyond Chinese borders for the first time by constructing the Belo Monte electricity transmission line in Brazil, completing the project's first phase in 2017. Former State Grid board chairman and Party secretary, Shu Yinbiao, will in 2020 become the first Chinese president of the International Electrotechnical Commission, a key global standard-setting body. The example of State Grid illustrates how Chinese SOEs today are not only developing and exporting new technologies, but also shaping international technical standards.

5. Conclusion

This chapter provides an overview of SOEs in contemporary China. It examines the corporate organization of Chinese SOEs, their political embeddedness in the bureaucratic hierarchies of the state and CCP, and the political mobility of SOE leaders. The chapter scrutinizes the CCP's role in SOE governance through Party committees and the interactions between SOEs and higher-level Party organs, and it assesses the rationale and real-world costs of strengthening Party influence. It further examines Chinese SOEs' growing global activities in contracting, greenfield investments, M&A, and the development and export of new technologies.

Several key questions motivate continued research on Chinese SOEs. Do commercial or political incentives shape SOE behavior in domestic and overseas markets, and what conditions affect their relative influence? What other than ownership links Chinese SOEs to the state? How are Chinese SOEs governed and what is the role of the CCP in their governance? In what areas and to what extent can SOEs and their leaders act autonomously from the Party state? Finally, what are the dynamics of leadership and organizational politics inside SOEs?

Future research addressing these questions must give greater attention to Chinese SOE group companies. Most existing scholarship in economics, management studies, political science, and sociology centers on the publicly listed subsidiaries of Chinese SOEs. This is understandable due to immediate commercial interests and greater data availability (the lack of reporting requirements for non-listed firm entities means that systematic data concerning their operations is typically not publicly available). Yet group companies are crucial because they hold controlling shares in publicly listed subsidiaries and directly administer the bulk of (unlisted) SOE assets. Further scholarly investigation of how group companies are structured, governed, and operate is therefore essential.

Additional study is also needed to better map the linkages between SOEs and the state beyond ownership. Some types of other linkages are already widely known, such as the political connections of SOE executives or board members and various forms of financial ties like subsidies. Yet other kinds of linkages remain under-examined, such as the expanded sharing and joint analysis of big data between SOEs and the government in realms from transportation to security. This type of linkage will be increasingly important to understanding how SOEs do business in the future digital economy and potential sources of their competitive advantage in both domestic and international markets. Data sharing may also better illuminate the ways in which SOEs fulfill non-commercial functions for the state. Further mapping of firm-state linkages will also better situate SOEs relative to private firms in China, which exhibit a variety of organizational forms and frequently also enjoy various forms of state support (Coplin, 2019; Milhaupt and Zheng, 2015).

Finally, opening up the black box of SOEs to analyze their leadership and organizational politics could help to better explain firm behavior. Neither changes in firms' external environment nor institutions like the CCP-controlled cadre management system entirely determine SOE behavior. Instead, SOE leaders must respond to shifting markets and state directives by making choices about corporate strategy and structure, and then mobilizing internal and external support to carry their preferred courses of action. For example, Liu Zhenya, the former board chairman and Party secretary of State Grid, lobbied the Chinese leadership extensively to gain buy-in for a corporate strategy emphasizing the development of ultra-high voltage technology (Xu, 2016; Xu, 2018).

Analysis of organizational politics could also address the competitive and sometimes even conflictual relationships among a Chinese SOEs' top executives, between the group company and its subsidiaries, including those located overseas, and finally among subsidiaries themselves. Research on SOE leaders' political mobility and imprinting theory in the broader context of Chinese business already assesses the effects of individual-level attributes on particular political or economic outcomes (Marquis and Qiao, 2018). Future studies could build on this work by examining the dynamics of leadership—what Chinese SOE leaders actually do—and the organizational politics inside SOEs.

The need for expanded research on Chinese SOEs is more urgent now than ever. Chinese SOEs are assuming long-term commercial and strategic stakes in countries around the globe, by building, operating, owning, and investing in overseas projects, and by incorporating Chinese-developed technologies. This means that questions about Chinese SOEs' governance and operations are no longer simply a subject for academic inquiry or relevant only to China-focused researchers. Further investigation of Chinese SOEs, addressing the issues and questions examined in this chapter, is therefore vital for governments, companies, and communities worldwide.

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